

Pedigree Cats Inc.

Bridgedeck Clearance for Cats -- Does it matter?

This exert has been taken out of Tony Grainger's design catalogue. "The answer might seem obvious to anyone who has sailed bridgedeck cats offshore but it isn't so obvious to the newcomer to multihulls and one could be excused for asking the question when we see the proliferation of production cruising cats with relatively, and sometime very low bridge clearance.

Excessive clearance will create undesirable windage and it also increases the gap between the boom and the water which is a major factor in reducing the efficiency of the rig from induced drag. However, it must be remembered that a bridge clearance is reduced as heeling takes place and the clearance is inadequate safety, comfort, and overall performance will be compromised.

So what does it matter? Wave slamming is most likely to occur upwind when the pitching of the boat interacts with the occasional steeper wave to cause slamming under the bridge. However, slamming can occur on any angle of sail including downwind and is typically experienced on Australia's East Coast when there is a residual short sharp swell left over from a fresh northeasterly, combined with the more even south easterly swell which is almost always present, even if only small.

The effects can vary from the occasional distraction of a dull thump under the bridge, to constant impacts which will slow the boat, and severely impede progress to windward, and in the extreme will lead to structural damage.

So how much clearance is enough? It depends on the width of the boat (a wider bridge has greater exposed flat area), the degree to which the boat pitches, (subject to hull shapes), and to what extent you value performance (and by implication, safety) as opposed to retaining a low profile, however it could be sailed with a clearance of much less than 6% or 7% of LOA would be generally considered to be low for an offshore sailing catamaran.

For More Information, email us at Info@PedigreeCats.Com



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